NATURAL RESOURCES CONSERVATION SERVICE
Wyoming
CONSTRUCTION SPECIFICATIONS
FOR
POND (EXCAVATED)

_____
(Owner/Operator)

_____
(Project/Title)

GENERAL

Installation shall be in accordance with an approved design and plan. Details of construction shown on the drawings but not included herein are considered as a part of this specification. Construction activities shall be in accordance with applicable OSHA regulations.

SITE PREPARATION

Areas to be excavated or have excavated materials placed upon shall be cleared of all trees, brush, logs, and debris. Prior to placing fills, the foundation area shall be roughened and moistened to assure good bond between foundation and embankment fill materials.

Waste material shall be removed from the site or otherwise disposed so that runoff water will not carry it into the sediment basin.

EXCAVATION

The pond shall be excavated to the lines and grades shown on the drawings and/or staked in the field. Spillways when shown on the drawings shall be excavated to the required cross-section and grades.

EXCAVATION DISPOSAL

Excavated material used for embankments and berms shall be placed as shown on the drawings and/or staked in the field

The excess material excavated from the pond area and not used for embankment fill shall be disposed of in one of the following ways:

1. Uniformly spread to a height not exceeding three feet with the top graded to a continuous slope away from the basin.
2. Uniformly placed and spread behind the berm width and with side slopes as shown on the drawings.
3. Removed from the project site.

COMPACTED EARTHFILL AND BACKFILL

Fill Material. All fill materials shall be obtained from excavations required for other parts of the work and approved borrow areas. The selection, blending, routing, and disposition of materials within the embankment shall be subject to the approval of the technician. Fill materials shall contain no sod, brush, roots, or other perishable or unsuitable material. Cobbles and rock fragments having a maximum dimension of more than six inches shall be removed from the materials prior to compaction.

Placement. The placing and spreading of the fill material shall start at the lowest point of the foundation. The fill shall be brought up in approximately horizontal layers parallel to the axis of the dam and of such thickness that the required compaction can be obtained with the equipment used. Fill placed around structures will be brought up at approximately uniform height on all sides of the structure.

Moisture**.** The moisture content of fill material shall be maintained within the limits required to prevent the adherence of the fill material to the treads/tracks of equipment and ensure the crushing and blending of the soil clods.

Generally when soil material is squeezed in the hand it will retain a ball shape, but there will not be free water on the surface. As far as practicable the material shall be brought to the proper water content in the pond area or borrow

area before excavation. Supplemental water, when required, may be applied by sprinkling the materials on the fill. Uniform distribution of the moisture shall be obtained by discing, blading or other approved method prior to compaction.

COMPACTION METHODS

Compaction shall meet the requirements of the method designated and described below:

1. Sheepsfoot roller - The maximum layer thickness shall be 8 inches before compaction. The roller shall have staggered, uniformly spaced tamping feet and be equipped with suitable cleaners. The weight of the roller shall be not less than 2,500 pounds per foot of width. The maximum speed of the compaction equipment shall be 3 miles per hour. The entire surface of each layer placed shall receive six passes of this equipment to attain the necessary compaction. Adjustment in the number of passes may be necessary during construction.
2. Pneumatic tired equipment - The maximum layer thickness before compaction shall be six inches. A loaded scraper or wheel tractor maybe considered a pneumatic roller. The wheels of this equipment must pass over 95 percent of the surface of each lift before a new lift is placed.
3. Track laying equipment (Bulldozer) The maximum layer thickness compaction shall be 4 inches. The tracks of the equipment must pass over 95 percent of the surface of each lift before a new lift is placed.

Compliance with compaction requirements will be determined by observation of performance applicable method. Fill not meeting the specified requirements shall be reworked or removed and replaced with acceptable fill.

SEEDING

Cut slope areas above the design water level, embankment and waste disposal areas shall be seeded as required in “ADDITIONAL SPECIFICATIONS”.

INLET AND OUTLET PROTECTION

Structural protection shall be as shown on the drawings for the pond inlet and outlet. Rock for riprap shall be angular, dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock shall be well graded so that the installed riprap blanket will consist of a dense layer of interlocked rock.

Bedding material when specified shall consist of a sand-gravel mixture such as would be used in a concrete mix.

FENCING

Posts may be galvanized steel or wood. Steel posts should be a minimum of 6.5 feet long and wood posts a minimum of 7.5 feet long. Wood posts shall be cedar, redwood, or other decay resistant wood or treated with Dentachloro-phenal or creosote. Minimum top diameter for wood posts is 4 inches. All posts shall be firmly set into the ground, braced at all corners and turns, and spaced as shown on the drawings, but not to exceed 20 feet.

Wire. Barbed wire shall be a minimum of two strands of 12-1/2 gage, galvanized wire. Woven wire shall be galvanized, aluminum or plastic coated. Top and bottom wires shall be a minimum of 11-gage and intermediate line and stay wires shall be a minimum of 14-1/2 gage.

Hardware. Wire ties, clamps, staples, and related fence hardware shall have equivalent coating to the fencing being installed.

Pole or timber fence equivalent to standard barbed wire fence in usefulness and durability may be used as an alternate when authorized by the responsible technician.

ADDITIONAL SPECIFICATIONS